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Uniform reducibility of representability problems for algebraic structures

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Abstract

Given a countable algebraic structure B with no degree we find sufficient conditions for the existence of a countable structure A with the following properties: (1) for every isomorphic copy of A there is an isomorphic copy of A Turing reducible to the former; (2) there is no uniform effective procedure for generating a copy of A given a copy of B even having been enriched with an arbitrary finite tuple of constants. © 2009 Pleiades Publishing, Ltd.

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Keywords

Computability of an algebraic structure, Mass problem, Turing degree